

ORADEANU, A1.

Remaking the 1963 plan; interesting suggestions, enthusiastic engagements. Constr Buc 14 no. 675: 1,4 15 December 1962.

GRADIANU, M.

"Principles of the jet propulsion of fast planes", p. 15, (AVIATION, no. 2, Jan. 1953, Bucuresti)

SO: Monthly List of East European Acquisitions, Vol. 2, no. 1, Library of Congress, August 1953, Uncl.

ORADEANU, A

The gas conduit in Hunedara is about ready p.3.
(CONSTRUCTORUL. Vol. 9, no. 401, Sept 1957, Bucuresti, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957.
UNCL.

ORADEA, ROMANIA

RUMANIA / Chemical Technology. Chemical Products and
Their Application. Cellulose and Cellulose
Products. Paper.

H-33

Abs Jour : Ref Zhur - Khim, No 3, 1958, No 10,025

Author : Oradeanu, T.

Inst : Not given

Title : Manufacture and Use of Decorative Paper.

Orig Pub : Celulose si hirtie, 1957, 6, No 4, 131-135

Abstract : The technological operations of sizing, drying, pressing,
and the properties and uses of decorative papers are
described. The following were considered: 1) laminated
decorative paper backed with laminated paper, cotton
sheets, asbestos, glass fibers; 2) decorative coating
paper for finishing veneer, fibrous building materials
and wood boards.

Card 1/1

RUMANIA / Chemical Technology, Chemical Products and H
Their Application, Part 4. - Cellulose and
Its Derivatives, Paper.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 63134.

Author : Gh. Badanoiu, T. Oradeanu.

Inst : Not given.

Title : Utilization of Reed Wastes by Pressing with
Synthetic Binders.

Orig Pub: Celuloza si hirtie, 1958, 7, No 3, 103 - 107.

Abstract: It will be possible to utilize reed wastes,
which will be cast off at the chemical com-
bine at Braila, by pressing them with a syn-
thetic binder for the production of tiles,
the properties of which are similar to those
of wood shavings. The technological process

Card 1/2

CRABEAU, T.

Fabrication of wood-fiber boards by a dry and sandy method. p.1.

DEUTSCH, G. H. (Associate Scientist, a Engineer at Foundation of
Romania si Ministerul de Interne (Interne si Interne), Bucuresti, Romania
Vol. 1, no. 2, Feb. 1961.

Monthly list of East European Missions (S.M.I.) 10, Vol. 1, no. 2, July 1961.

Uncl.

ORADEANU, T.; DUPU, M.; BALANOIU, Gh.;

Particle boards from flax and hemp twigs. p. 371.

INDUSTRIA LEMNULUI. (Asociatia Stiintifica a Inginerilor si Tehnicienilor
din Romani si Ministerul Industriei Lemnului) Bucuresti., Romania
Vol. 8, no. 10, 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 9, no. 2,
Feb. 1960.

UNCL.

ISACESCU, D.; BILLER, S.; ORADEANU, T.; DUPU, M.

A microstructural study of beech plywood impregnated with furfurole-phenolic resin. Analele chimie 16 no.1:73-96 Ja-Mr '61.
(EEAI 10:9)

(Beech) (Plywood) (Impregnating materials)
(Furaldehyde) (Phenols) (Gums and resins, Synthetic)

ORADOVSKAYA, A. Ye. Cand Tech Sci -- (diss) ^{507/100} "Water lixiviation of dispersively scattered gypsum from argillaceous sand rocks." Mos, 1958. 19 pp with graphs (Acad of Construction and Architecture USSR. All-Union Sci Res Inst of Water Supply, Canalization, Hydraulic Engineering Structures, and Engineering Hydrogeology VODG^EHC), 100 copies (KL, 14-58, 114)

VERIGIN, N.N.; ORADOVSKAYA, A.Ye.; SHESTAKOV, V.M., kand.tekhn.nauk, red.

[Methodological instructions for the calculation of solution processes in saline soils in the bodies and foundations of hydraulic structures] Metodicheskie ukazaniia po otsenke rastovoreniia zasolennykh gruntov v tele i osnovanii gidrotekhnicheskikh sooruzhenii. Moskva. Akad.stroitel'no-arkhit. 1960. 37 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut vodosnabzheniia, kanalizatsii, gidrotekhnicheskikh sooruzhenii i inzhenernoi gidrogeologii. Laboratoriia inzhenernoi gidrogeologii. Laboratoriia inzhenernoi gidrogeologii. Informatsionnye materialy, no.15). (MIRA 14:11)

(Hydraulic structures) (Saline and Alkali soils)

ORADOVSKAYA, A.Ye., kand.tekhn.nauk

Estimation of post-settling deformations of loess. Gidr.stroi. 31
no.4:53-54 Ap '61. (MIRA 14:5)

(Loess)

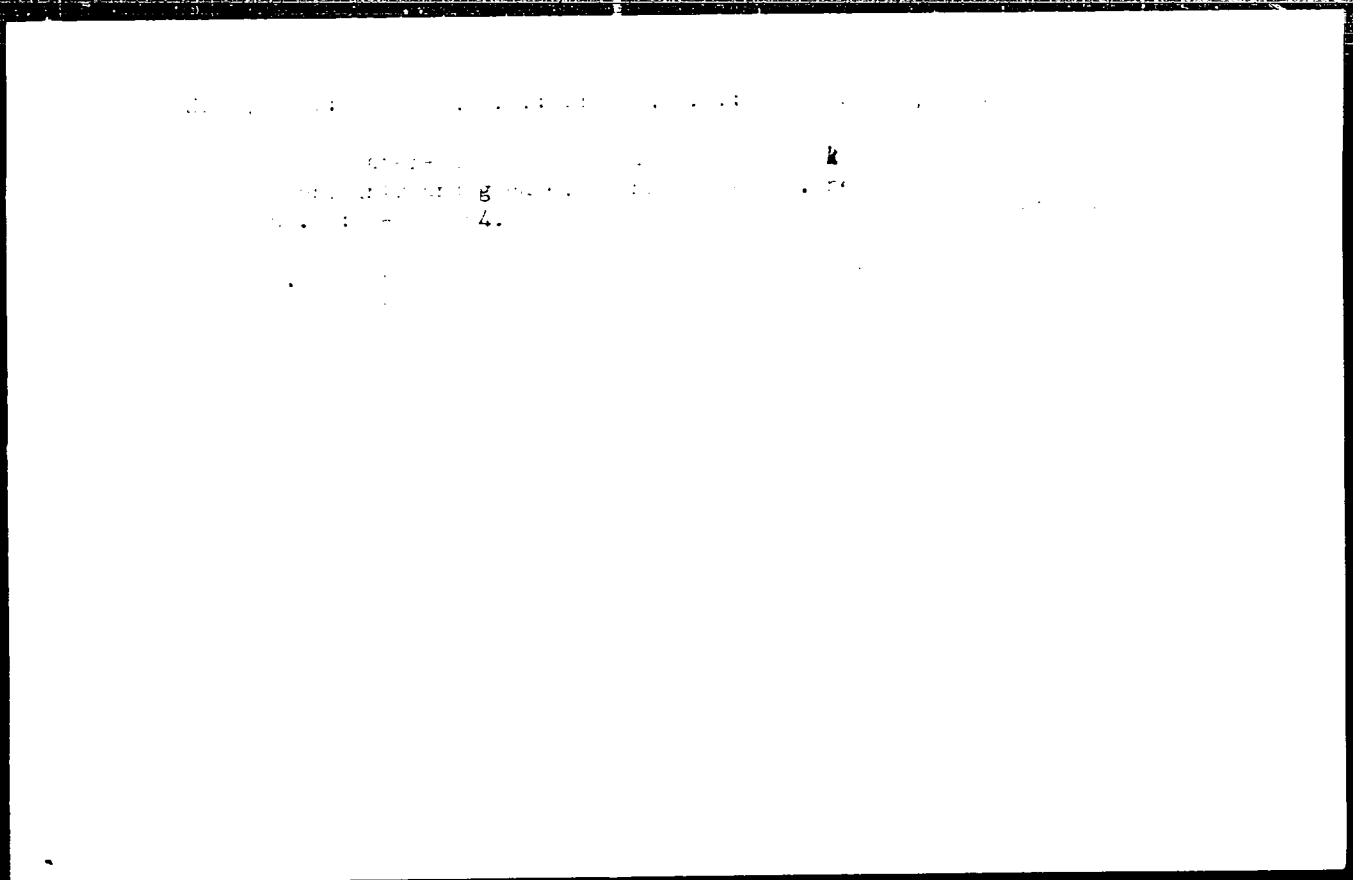
ORADOVSKAYA, A.Ye.; BOCHEVER, F.M.

Approximate calculation of the dissolving of formation salts
in foundation beds of hydraulic structures. Trudy VODGEO
no.6:9-14 '64. (MIRA 18:3)

BOCHEVER, F.M.; ORADONIKAYA, A.Ye.

Forecasting temperature changes in underground waters in infiltration water intakes. Trudy VUZEL no.9:67-84 '64.

(MIRA 18:10)



ORADYNSKIY, S.G.

Determination of ultramicroamounts of manganese in natural waters
by a catalytic method with subsequent photometry. Izv. anal. khim.
19 no.7:864-867 '64. (USSR 17:11)

I. All-Union Scientific Research Institute of Marine Fisheries and
Oceanography, Moscow.

ORAGVELIDZE, K.M.

State of the structure of digestive organs in hypertrophy in very young children. Trudy Inst. eksp. morf. AN Gruz. SSR. 1963. 53-54. 163.

1. Kafedra patol. fiziolog. anatomii Tbilisskogo gosudarstvennogo meditsinskogo instituta.

Figure 1. The effect of the concentration of the vitamin E on the content of the vitamin E in the plasma of the rats.

The results of the study with special reference to the content of the vitamin E in the plasma of the rats are shown in Figure 1. The results show that the content of the vitamin E in the plasma of the rats exposed to overstraining of the muscles is significantly lower than that of the control group.

L 17528-63

WJW/JD

EWT(m)/ENA(d)/EPR/EWP(t)/EWP(b) P3-4 DIAAP/IJP(c)/AFETR/AFTC(p)

S/0080/64/037/011/2531/2533

ACCESSION NR: AP5000513

AUTHOR: Bogovavlenskiy, A. F., Oranskaya, I. P.

TITLE: Incorporation of oxidation cath anion into MgO anode film as determined by the method of labeled atoms

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 11, 1964, 2531-2533

TOPIC TAGS: anode oxidation, anode film, magnesium alloy, aluminum alloy, magnesium oxide film, anion incorporation, phosphate incorporation, sulfate incorporation, electrolysis

ABSTRACT: Anode oxidation of magnesium alloy (ML-5) sheets was carried out in a solution containing 55g/liter NaOH and 35g/liter Na_3PO_4 . To the prepared electrolyte, P32 was added as trisodiumphosphate and the reaction was carried out at 70C and a current of 1.5 A/dm². After oxidation, the samples were washed to remove free PO_4^{-3} ions and the samples were dried and counted. The counts obtained showed increasing radioactivity in the samples, indicating that there was binding of phosphate ions by the oxidized anode film. Since they could not be washed away, there is a strong union between the two. The relative content of electrolyte anion in thin films reached 5% by weight, but as the oxide film increased in thickness the relative content of phosphate ions decreased, reaching

Card 1/2

L 17528-65

ACCESSION NR: AP5000513

2-2.5% after 30 minutes. Comparison of these results with earlier experiments on the incorporation of sulfate ions into oxidized aluminum revealed an analogy between these processes in magnesium and aluminum alloys. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 24Apr63

ENCL: 00

SUB CODE: IC, MM

NO REF SOV: 006

OTHER: 000

Card 2/2

ORADOVSKAYA, N.M.

Lower Ordovician of the Kolyma Massif. Dokl. AN SSSR 135 no.1:
158-161 N'60. (MIRA 13:11)

1. Predstavleno akademikom N.S.Shatskim.
(Kolyma Range--Geology, Stratigraphic)

MASLOV, L. S.; LYALIN, V. A.; ZABOLOTSKIY, S. K.; ORADOVSKAYA, S. I.

Using compounds on a base of epoxy resins in the manufacture of
oil petroleum containers. Transp i khran nefti no. 11:32-35 '63.
(MIRA 17:5)

1. Nauchno-issledovatel'skiy institut po transportu i khraneniyu
nefti i nefteproduktov.

SEMENOV, M.P., prof., doktor geol.-min. nauk; ORADOVSKIY, A.Ye.;
IL'INA, O.V. Prinimala uchastiye BLOKHINA, V.I.; BYSTROVSKAYA, N.,
red. izd-va; BOROVNEV, N.K., tekhn. red.

[Geology of the foundations of high dams] Geologiya osnovanii vysokikh plotin. Pod obshchei red. M.P.Semenova. Moskva, Gosstroizdat, 1962. 353 p. (MIRA 15:12)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut vodosnabzheniya, kanalizatsii, gidrotekhnicheskikh sooruzheniy i inzhenernoy gidrogeologii. 2. Nauchnyye sotrudniki Vsesoyuznogo nauchno-issledovatel'skogo instituta vodosnabzheniya, kanalizatsii, gidrotekhnicheskikh sooruzheniy i inzhenernoy gidrogeologii (for Semenov, Oradovskiy Il'ina, Blokhina).
(Engineering geology) (Dams)

ORADOVSKIY, S.G.

Lake Imandra. Priroda 52 no.3:63-66 '63.

(MIRA 16:4)

1. Gosudarstvennyy komitet Soveta Ministrov RSFSR po vodoru
khozyaystvu.

(Imandra, Lake)

KOZMIN, I.I., prof., glav. red.; ABAKUROV, V.A., zam. glav.
red.; BLINOVA, Ye.M., red.; BYKO, V.P., red.;
DASKINOV, G.I., red.; ~~SELETSKIY~~, S.S., red.;
POLUYAR, S.I., red.; VELICHKO, Ye.M., red.

(Papers of young scholars, study monographs, usherykh.
Moskva, Pishchevaia promyshlennost', 1966. 261 p.
(VIA 18:1)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut
morskogo rybnogo khozyaystva i okeanografii. Vsesoyuznyy
nauchno-issledovatel'skiy institut morskogo rybnogo kho-
zyaystva i okeanografii, Moskva (for Abakunov, Blinova,
Bykov).

~~ORAGVELIDZE, I. Sh.~~, dots.; DZHASHI, I., prof., obshchestvennyy red.;
TREMALADZE, M., red. izd-va; ABUSHELISHVILI, E., tekhn.red.

[Development of tea growing in Georgia] Razvitie chainogo
khoziaistva v Gruzii. Tbilisi, Gos.izd-vo "Sabchota
Sakartvelo," 1962. 348 p. (MIRA 16:8)
(Georgia—Tea)

USSR/Human and Animal Morphology - Endocrine System.

3

Abs Jour : Ref Zhur Biol., No 5, 1959, 21564
Author : Tatishvili, I.Ya., Oragvelidze, K.
Inst : Tbilisi Medical Institute
Title : The Problem of Age Structural Changes in the Hypophy-
sis and Its Nerve Apparatuses
Orig Pub : Tbilisis sameditsino instituti. Shromebi; Tr.
Tbilissk. med. in-t, 1957, 13, 231-240
Abstract : A study was made of the microscopic structure of the
hypophysis in 36 persons. In the hypophyses of the
newborn parenchymatous cells predominate, there are
few eosinophilic cells, the blood vessels are thin-
walled, the nerve structures are represented by a
small number of naked axis cylinders. At the age of
5-10 years the quantity of stroma increases. The

Card 1/2

- 28 -

ORAGVELIDZE, K.K., inzh.

Design of rubber parts for the traction drives of electric locomotives. Vest. TSNII MPS 22 no.7:32-37 '63. (MIRA 16:12)

1. Tbilisskiy elektrovostroitel'nyy zavod im. V.I. Lenina.

ORASVELTAGE, K.M.

State of the structure of the digestive tract of the
hypotrophy and experimental starvation. 1962. 40. 1962. 1962
29 no.6:753-759 D '62.

1. LITOVCHENKO, G., ORAW-LIDZ, .
2. USSR (600)
4. Collective Farms
7. Competition between two collective farms of brotherly r publics. Kolkh. proiv.
12, no. 11, 19 .
9. Monthly List of Russian Accessions, Library of Congress, March 1973. Unpublished.

VASIL'YEVA, A.V.; STEPANYAN, Ye.G.; GAL'PERIN, I.P.; YURKO, L.P.; ORAKAYEVA, N.S.

Epidemiology of typhus abdominalis and paratyphoid fever in the
City of Ashkhabad. Zdrav. Turk. 5 no.4:14-16 J1-Ag '61.

(MIRA 14:10)

1. Iz Ashkhabadskogo instituta epidemiologii i gigiyeny (direktor -
dotsent Ye.S.Popova).

(ASHKHABAD—TYPHOID FEVER)

(PARATYPHOID FEVER)

STEPANYAN, Ye.G.; VASIL'YEVA, A.V.; ORAKAYEVA, N.S.

Vi-agglutination, a supplementary method for detecting typhoid carriers.
Zdrav. Turk. 5 no.6:6-8 N-D '61. (MIRA 15:2)

1. Iz Ashkhabadskogo instituta epidemiologii i gigiyeny (dir. - dotsent
Ye. S.Popova.

(TYPHOID FEVER--AGGLUTINATION REACTION)

STEPANYAN, Ye.G.; YURKO, L.P.; BURMISTROVA, O.G.; ORAKAYEVA, N.S.

Salmonellosis in Ashkhabad. Zdrav.Turk. 6 no.4:18-21 J1-Ag '62.
(MIRA 15:8)

1. Iz kafedr mikrobiologii (zav. -prof. Ye.Ya.Gleyberman),
infektsionnykh bolezney (zav. - dotsent A.S.Medvedev) Turkmenskogo
gosudarstvennogo meditsinskogo instituta i Ashkhabadskogo instituta
epidemiologii i gigieyny (dir. - dotsent Ye.S.Popova).
(ASHKhabAD--SALMONELLA INFECTIONS)

ORAKHLASHVILI, M. I.

Gidroturbiny maloi moshchnosti. Spravochnik. Moskva, Mashgiz, 1949. 89 p.

Low-power hydraulic turbines. Handbook.

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953

BAUMAN, K.I., kandidat tekhnicheskikh nauk; ORAKHELASHVILI, N.M., laureat
Stalinskoy premii, inzhener.

Regulating the output of reaction turbines by an adjustable tip
on the spiral casing. Trudy VIGW no.12:59-91 '50. (MLRA 10:8)
(Hydraulic turbines)

ORAKHELASHVILI, M. M.

USSR/Engineering - Hydraulics, Turbine Feb 52

"Self-Braking of the Adjustable Blade Turbine by
Decrease in Inclination of Blades," M. M.
Orakhelashvili, Engr, Laureate of Stalin Prize

"Gidrotekh Stroi" No 2, pp 25-29

Using results of testing model turbine in laboratory of VIGM, establishes that decrease in number of revolutions and even complete braking of turbine may be achieved by turning runner blades in direction of small angles at any position of guide vanes. This permits eliminating quick-action gates--for stopping turbine in emergency--which increase size of structure and cost of hydroelec stations.

212765

ORAKHELASHVILI, M.M.

Comparative durability of hydraulic reaction turbines. Nauch. dokl.
vys. shkoly; energ. no.1:99-113 '58. (MIRA 11:10)

1.Rekomendovano kafedroy gidromashin Moskovskogo energeticheskogo
instituta.

(Hydraulic turbines)

ORAKHELASHVILI, M.M., inzh.

~~.....~~
Cases of spontaneous rasing of rotors of mixed-flow hydraulic turbines.
Elek. sta. 29 no.7:28-32 JI '58. (MIRA 11:10)
(Hydraulic turbines)

PHASE I BOOK EXPLOITATION

SOV/5677

Orakhelashvili, Merab Mamiyevich

Iznosostoykost' reaktivnykh gidroturbin (Wear Resistance of Hydraulic Reaction Turbines) Moscow, Gosenergoizdat, 1960. 108 p. 2500 copies printed.

Ed.: N. N. Arshenevskiy; Tech. Ed.: N. I. Borunov.

PURPOSE: This book is intended for engineers and technicians engaged in the planning and operation of hydroelectric power stations and in the design of hydraulic turbines and machinery; it may also be used by students in schools of higher technical education.

COVERAGE: Methods are presented which permit the evaluation and comparison of the degree of wear susceptibility of various types of turbines. Particular attention is focused on wear resulting from the action of hard particles suspended in water. The working processes of modern hydraulic reaction turbines are analyzed from the point of view of wear and cavitation resistance under different operating regimes. Recommendations are given for the proper selection of turbines for various mounting and operating conditions, and for design measures aimed at increasing the service life of the turbine

Carri 1/3

ORAKHELASHVILI, M.M., kand.tekhn.nauk

Mixed-flow double-runner hydraulic turbine. Gidr. stroi. 30 no.4:
11-14 Ap '80. (MIRA 14:4)

(Hydraulic turbines)

RABONOV, Boris Aleksandrovich; **ORAKHELASHVILI**, M.M., retsenzent;
NAVROTSKIY, D.I., red.; **ORGO**, V.M., red.; **ZHITNIKOVA**, O.S.,
tekh. red.

[Problems of the resistance of adjustable blade (Kaplan)
hydraulic turbines to cavitation] Voprosy kavitatsionnoi
stoikosti povorotnolopastnykh gidroturbin. Moskva, Gos.
energ. izd-vo, 1961. 234 p. (MIRA 15:3)
(Hydraulic turbines) (Cavitation)

ORAKHELASHVILI, M.M., kand.tekhn.nauk, dotsent

Improving the power characteristics of the guide devices of hydraulic
reaction turbines. Energomashinostroenie 7 no.12:17-21 1971.
(MIRA 14:12)

(Hydraulic turbines)

ORAKHELASHVILI, M.M., kand. tekhn. nauk, dotsent

Specification of hydraulic analysis of spiral metal inlets
for hydraulic turbines. Energomashinostroyeniye 9 no.7:16-18
Jl '63. (MIRA 16:7)

(Hydraulic turbines)

ACCESSION NR: AR4018337

B/0137/64/000/001/I089/I089

SOURCE: RZh. Metallurgiya, Abs. 11568

AUTHOR: Aksenov, G. I.; Orakhov, Yu. P.

TITLE: The influence of various factors on the structure and properties of metal-ceramic iron-silicon alloys

CITED SOURCE: Tr. Kuyby*shevsk. aviats. in-t, vy*p. 16, 1963, 201-211

TOPIC TAGS: sintered alloy, iron silicon alloy, sintered alloy property

TRANSLATION: Research was made on the influence of the silicon content, the specific pressing pressure, and the sintering temperature on the porosity and specific losses of metal-ceramic Fe-Si alloys at a frequency of 50 cps. The research was conducted by metallographic and roentgenostructural methods. The mixtures were made of Sulin Fe-powder types AK, AS, AM, and AOM, and Si75 ferrosilicon with a particle size of less than 0.04 mm in a mechanical mixer with a 0-10% silicon content. Single-layer ring-shaped samples were pressed at a specific pressure

Card 1/2

51
ACCESSION NR: AR4018337

of 5, 10, and 15 tons/cm². The pressed samples were sintered in an atmosphere of dissociated ammonia at 1,000-1,300 degrees for 1-28 hours. It was shown that the porosity of Fe-Si pressed parts depends upon the silicon content. An empirical equation was arrived at, which connected the relative porosity (in %) with the specific pressure of pressing (in tons/cm²) and the silicon content (in %). The x-ray structural analysis showed that after 20 hours of sintering at 1,300 degrees, the alloys become a homogeneous solid solution of silicon in alpha Fe. The specific losses change according to a curve with a dip when the silicon content is increased. The minimum losses of Plp/50 were obtained with 6-7% Si. They amount to approximately 7 watts/kg. With this composition, the minimum Hc and the maximum magnetic permeability was obtained.

SUB CODE: MM

ENCL: 00

Cord 2/2

ORANOVA, A.S.

G-2

COUNTRY : Bulgaria
CATEGORY :

ABS. JOUR. : RZKhim., No. 20 1959, No. 71434

AUTHOR : Mollov, N.M.; Oranova, A.S.

INST. : Not given

TITLE : Properties and Reactions of Ethyl α, β -di
phenyl- β -amino-propionates. I. Reduction
to 2,3-diphenyl-3-aminopropanols By Means *

ORIG. PUB. : Dokl Bulg. AN, 1958, 11, #41, 283-286.

ABSTRACT : Search for new drugs formed by the reduction
of ethyl N-substituted α, β -diphenyl- β -amino
propionates led to the synthesis of 2,3-
diphenyl-3-amino-propanols-1 of a general
formula $C_6H_5CH(NHR)CH(C_6H_5)CH_2OH$ (Ia-d where
a): R = H, b): R = CH_3 , c): R = C_6H_5 , d)
R = β - C_6H_4). Into a suspension of 3 moles
 $LiAlH_4$ in ether (30 ml of ether per 0.01 mole)
was added over a 15 minute period a solution
of aminoester in ether for (a and b) and in
benzene for (c-d) (50 ml of ether or 80 ml
 C_6H_6 /per 0.01 mole). After 15 minutes the

CARD: 1/2

* of Lithium Aluminum Hydride

KURTEV, B.Y.; MOLLOV, N.M.; ORAKHOVATS, A.S.

N → O benzoyl migration of diastereometric 1,2-diphenyl-1-(benzoylamino)-3-propanols. Izv.AN SSSR.Otd.khim.nauk no.8:1523
Ag '62. (MIRA 15:5)

1. Sofiyskiy gosudarstvennyy universitet.
(Propanol) (Benzoylation)

AUTHOR: ORAKHOVETS, D: ACADEMICIAN, DIRECTOR, INSTITUTE OF EXPERIMENTAL
MEDICINE, BULGARIAN ACADEMY OF SCIENCES.

TITLE: THE PAVLOV DOCTRINE IN BULGARIA (PAVLOVSKOYE ucheniye v Bolgarii;

PERIODICAL: NAUKA I ZHIZN', 1957 #12, pp2 (USSR)

ABSTRACT: After the establishment of the people's democracy in Bulgaria, several new scientific and medical institutes were founded, among them the Higher Medical Institute imeni I. P. Pavlov (Vysshiy meditsinskiy institut imeni I. P. Pavlova) in the city of Plovdiv. Furthermore , chairs in physiology were set up at the state university at Sofia, at the Higher Veterinary-Medical Institute, at the Higher Agricultural Institute as well as physiology sections and laboratories at various scientific research institutes of the Ministry of Health. Considerably increases were also the number of chairs for pharmacology and biochemistry. The event of greatest importance for the development of theoretical , clinical and practical medicine in Bulgaria was the joint session of the Bulgarian Academy of Sciences and the USSR Academy of Medical Sciences, devoted to Pavlov doctrines. The Special Pavlov Committee was founded simultaneously with this session with the aim to acquaint the Bulgarian Medical Faculty with the basic principles of Pavlov's physiology.

ASSOCIATION: INSTITUTE OF EXPERIMENTAL MEDICINE OF THE BULGARIAN ACADEMY OF SCIENCES.

(CONT.)

(Institute eksperimental'noy meditsiny Bolgarskoy Akademii nauk.)

AVAILABLE: LIBRARY OF CONGRESS

CARD 2/2

~~ORANOVSKA, D.~~; DOBREVA, N.; NACHEV, N.; VASILEV, A.; GINOVSKA, Fr.;
VELCHEV, G.

Phosphorus content in the erythrocytes of venous and spleen blood.
Izv biol med. BAN 3 no.3:21-28 '59. (EEAI 10:4)

1. Katedra po fiziologija pri VMI, Sofia.
(PHOSPHORUS)
(BLOOD)
(SPLEEN)

ORAKHOVATS, D.; GOTSEV, T.; KOZLOVSKI, G.

On the effect of adrenalin on blood vessels of the lower extremities
in man. Nauch. tr. vissh. med. inst. Sofia 39 no.2:1-14 '60.

1. Predstavena ot akad. D. Orakhovats, zav. Katedrata po fiziologiya,
i ot prof. d-r L. Popov, zav. Katedrata po kozhno-venericheski bolesti.

(EPINEPHRINE pharmacol) (VASOMOTOR SYSTEM pharmacol)

ORANOVATS, D., acad.; GLAVCHEVA, L.; ANDREICHEVA, M:

A study of certain laws governing the release of proteins into the gastric juice and the part played by the nervous system in this process. Rumanian M Rev. no.1:205-214 Ja-Mr '61.

1. The Institute of Experimental Medicine of the Academy of Sciences, Bulgaria.

(PROTEINS metabolism) (GASTRIC JUICE chemistry)
(NERVOUS SYSTEM physiology)

ORAKHOVATS, D.

On methodological and basic concepts in the study of aging manifestations. Izv. inst. fiziol. 5:5-43 '62.

(AGING)

ORAKHOVATS, D.; PAPAZOVA, M.; ANGELOV, A.

Energy expenditure and basal metabolism in a group of the population over 60 years of age not engaged productive work. Izv. inst. fiziol. 5:91-101 '62.

(METABOLISM) (AGING) (BASAL METABOLISM)

ORAKHOVATS, D. [Orakhovats, D.], akad.; MARKOV, M.; WARBANOV, W. [Vurbanov, V.]

Effect of the resistance of soft tissues in the measurement of
blood pressure by the Korotkov method. Doklady BAN 15 no.3:333-336
'62.

1. Physiologisches Institut der Bulgarischen Akademie der
Wissenschaften. 2. Chlen Redaktsionnoy kollegii, "Doklady
Bolgarskoy Akademii Nauk" (for Orakhovats).

✱

ORAKHOVATS, D. [deceased]; DRAGANOV, I.; VIKSANGOV, V.; PANKOV, M.; KIROV, A.;
PAPADOV, P.; NEMEV, Ch.

Simultaneous recording of the arterial pressure, sci. apparatus,
Korotkov's tones and pressure of the cuff of the brachial artery
by means of direct measurements in man. Izv. Inst. fiziol. (Sofia)
2:6-18 1961.

CHAKHOVAIS, D. [deceased]; MARKOV, M.; VASSILIOV, V.; DRAGANOV, I.

Studies on the development of Markov's tones. Izv. Inst. fiz. .
(Sofia) 11:19-28 1964.

1. The first part of the document is a list of the names of the

members of the committee who have been appointed to study the
problem of the development of the national economy. The committee
is composed of the following members: [illegible]

ORALBAYEV, K.: Master Med Sci (diss) -- 'A study of the pharmacodynamics of preparations of Brassica catchleyi and shirokolistnaya'. Alma-Ata, 1958. 17 pp (Kazakh State Med Inst), 300 copies (KI, No 7, 1959, 129)

ORALBAYEV, K. O.

Country: USSR

Category: Pharmacology. Toxicology. Medicinal Plants.

Abstr Jour: FZhBi 1., No. 6, 1959, No. 27856

Author : Oralbayev, K. O.

Instit : ---

Title : On the Influence of the Preparations of *Silene "bragvinskaya"* and *Silene latifolia* on the Gastric Secretion of Dogs

Orig Pub: Zdravochhr. Kazakhstana, 1958, No. 5, 44-50

Abstract: The action of 5-15% tinctures of *Silene "bragvinskaya"* (I) and *Silene latifolia* (II) and 10% alcohol tincture of *Silene "bragvinskaya"* (III) on gastric secretion was studied in experiments on dogs. I and II in a dose of 5 ml/kg induce an increase of the amount of gastric juice up to 500% and 383.3% (respectively).

Card : 1/2

V-40

Country : USSR

Category: Pharmacology. Toxicology. Medicinal Plants.

V

Abs Jour: RZhBiol., No 6, 1959, No 27858

ly) and an increase of its acidity (total acidity increased to 160% and 200% respectively). III in a dose of 3-5 ml/kg also increases the amount of gastric juice to 1600% and increases its acidity (to 200%). In accordance with author's opinion, the indicated preparations may be utilized as medicinal agents in gastritis and peptic ulcer. - V.V. Berezinskaya

Card : 2/2

ORALBAYEV, K.O.

Study of the reaction of the small intestine in a rabbit to the action of infusions of *Silene Brahui* and *latifolia*. Trudy Semipal. med. inst. 2:88-92 '59. (MIRA 15:4)

1. Kafedra farmakologii (zaveduyushchiy kafedroy - dotsent A.A. Altymyshev) Semipalatinskogo gosudarstvennogo meditsinskogo instituta i kafedra farmakologii Kazgosinstituta (zaveduyushchiy kafedroy - prof. I.I. Sivertsev).
(INTESTINES) (SILENE)

ORALBAYEV, K.O.

Apropos of the article by E.B. Berkin "Some problems in teaching pharmacology in institutions of higher education." Farmakol. toksik. 26 no. 3:281-282 My-Je'63 (MIA :)

1. Kafedra farmakologii Semipalatinskogo meditsinskogo instituta.

SAFIRYKIN, L.D.; ORALOV, L.N.

Lowering underground structures in a ring of ice and soil.
Prom. stroi. 39 no.5:22-26 '61. (MJRA 14:7)
(Kiev--Subways) (Underground construction)

SAPRYKIN, I.C.; ORALOV, I.N., inzh., POPRAYKO, V.I., inzh.

Construction of a subterranean underpass by the rapid-track
schedule method. Transp. str. 15.6.1977. 0.5.166

(MIRA 18:11)

1. Nachal'nik Upravleniya stroitel'stva Kiyevskogo metropolitana
(for Saprykin).

ORALOV, M. D.

High-duty boring tool. Mashinostroitel' no.12:23 D '61.
(MIRA 14:12)
(Drilling and boring machinery)

ORALOV, M.D.

Using the switching method in grinding cutting tools.
Mashinostroitel' no.4:38 Ap '62. (MIRA 15:5)
(Grinding and polishing)

ORALOV, N.D.

New method of oil filling. Mashinostroitel' no. 9:3.
S 162. (NIIA 15:9)
(Milling machines--Lubrication)

ORALOVA, A.M. (Krasnodar)

Teaching of anatomy in the medical school. Fel'd. i akush. 26
no. 1:53-54 Ja '61. (MIRA 14:2)
(ANATOMY, HUMAN--STUDY AND TEACHING)

S/194/61/000/010/001/082
D256/D301

AUTHORS: Oralova, I.A. and Chernyshev, Ye.T.
TITLE: Determining total-loss in specimens of ferromagnetic materials by calorimetric methods
PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika no. 10, 1961, 6, abstract 10 A45 (Tr. in-tov. Kom-ta standartov, mer i izmeritel'nykh priborov pri Sov. Min. SSSR, 1960, no. 43 (103), 82-89)

TEXT. Methods are described of total-loss measurements in specimens of ferromagnetic materials at frequencies up to 20 kcs/sec. Results are presented of comparative investigations of the calorimeter-, wattmeter and bridge- methods. Using the calorimetric method the tested specimen was placed together with the magnetizing coil in a Dewar vessel filled with transformer oil, and the losses were determined by measuring the temperature of the oil. The value of the max. magnetic induction corresponding to the measured loss was

Card 1/2

CHERNYSHEV, Ye.T.; CHECHURINA, Ye.N.; CHERNYSHEVA, N.S.; ORALOVA, L.A.

Research by the All-Union Research Institute of Metrology on
the establishment of methods and creation of equipment for
testing standard specimens of ferromagnetic materials by
alternating current. Trudy inst. Kom.stand.mer i izm. prib
no.64:145-159 '62. (MIRA 16:5,

(Ferromagnetism--Measurement)
(Magnetic measurements--Equipment and supplies)

KURTYS, V.L.; OGDALOVA, I.N.; SHANNYSHEVA, L.G.

Differential calorimeter.. study inst. K m. stand., per. izm. prii.
no. 72:39-52 '63. (M. A. 16:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii i izm.
Mendeleyeva.
(Calorimeters)

ORANESCU, Amedeu, ing.

Marking the shaped parts of welded metallic pipelines. Pt.1.
Constr mas 15 no.4:317-322 Ap '63.

1. Institutul politehnic, Galati.

ORANESCU, Amedeu, ing.

Tracing of shaped parts in welded metallic conduits. Pt. 2.
Constr mas 15 no.6:442-446 Je 1955.

1. Institutul politehnic, Galati.

/195/62/00/010/010/035
0073/E155

AUTHORS: Grigoryan, L.L. and Kabalaliyev, Yu.

TITLE: Low 10 kV power cable

PERIODICAL: Referativnyi zhurnal, Elektrotehnika i energetika,
no.10, 1962, 15, abstract 10 369. (Ayastan;
Ardynaberutyuny, no.9, 1961, 33-38 (Arm.),
Proe-st' Armenii, no.9, 1961, 30-34 (Russian).

TEXT: The characteristics are given of six designs of
sheathed power cables with rubber insulation, for laying into the
ground. As electric insulation ozone-resistant butyl-rubber was
used. The various designs differed by the presence or absence of
semiconducting rubber on the core, a graphite layer and rubberized
strip wound on the electric insulation. The results of
investigations of the electric insulation and of hose rubber are
given. 5 references.

ASSOCIATION: AF VNIIEM

Abstractor's note: Complete translation.

Card 1/1

20818

9.4150 (also 1138, 1137, 1395)

S/048/61/025/003/006/047
B104/B201

AUTHOR: Oranovskaya, T.V.

TITLE: Luminescence properties of aluminum oxide and helenite
activated by cerium under cathode-beam excitation

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya,
v. 25, no. 3, 1961, 327 - 330

TEXT: This is a reproduction of a lecture delivered at the 9th Conference on Luminescence (Crystal Phosphors), which took place in Kiyev from June 20 to 25, 1960. The author studied the emission spectrum, the relative intensity of luminescence and the time of damping of cathodoluminescences $2\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot \text{SiO}_2$ -Ce and Al_2O_3 -Ce as a function of the amount of heavy metals (Fe, Cu, Cr) in the mixture. The aluminum oxide was used in the form of α - Al_2O_3 . All characteristics were examined with a steady electron beam at plate voltages of 15 - 17 kv and a current density of $0.1 \mu\text{a}/\text{cm}^2$. The spectrum was taken with a UM-3 (UM-3) monochromator and a photomultiplier. The intensity of the individual bands and the damping rate were measured
Card 1/5

20818

Luminescence properties of ...

S/048/61/025/003/006/047
B104/B201

on all luminophores. All $\text{Al}_2\text{O}_3\text{-Ce,Cr}$ and $\text{Al}_2\text{O}_3\text{-Ce,Fe}$ luminophores were found to have in the emission spectrum a red band with $\lambda_{\text{max}} = 6920 \text{ \AA}$, the intensity of which depended upon the Cr and Fe contents. On an increase of the chromium content from 0.006 % to 0.1%, the intensity of the red band rose by the sevenfold, while that of the blue band decreased. At about $1 \cdot 10^{-2}$ % the blue band becomes stronger again, and at $1 \cdot 10^{-3}$ % the intensity of the red band is about 30% of that of the blue band. The afterglow lasts $1 \cdot 10^{-2}$ seconds. By introduction of Fe in $\text{Al}_2\text{O}_3\text{-Ce}$, a sharp drop of intensity appears. Fe was found to act as an extinguisher, especially for the blue band, but also for the red one. The spectrum of the $\text{Al}_2\text{O}_3\text{-Fe}$ luminophore consists of two bands, one with $\lambda_{\text{max}} = 6920 \text{ \AA}$ and one with $\lambda_{\text{max}} = 5200 \text{ \AA}$, the former being a chromium band and having an intensity which is about 30% of the red band. Al_2O_3 luminophore has a green band on activation with copper or manganese. At a copper content of $2 \cdot 10^{-5} - 1 \cdot 10^{-3}$ % this luminophore has an intensive green band with $\lambda_{\text{max}} = 5200 - 300 \text{ \AA}$. At about 1% Cu the intensity of the green band is

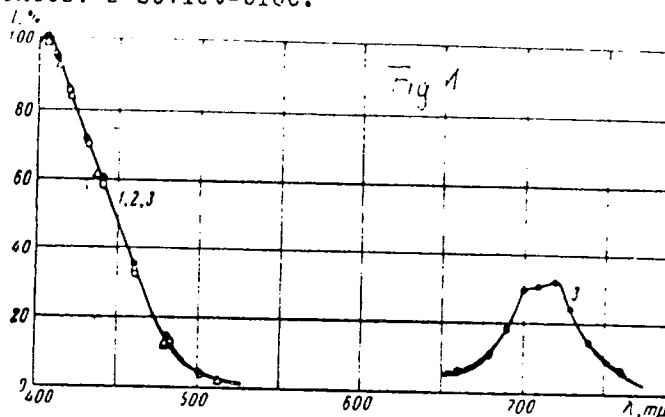
Card 2/5

Luminescence properties of ...

S/048/61/025/003/006/047
B104/B201

about 50% of that of the cerium band. The afterglow of these luminophores lasts 10^{-2} seconds. The use of spectrally pure aluminum oxide was found to raise the brightness of activator-free Al_2O_3 by about 20 - 25%. The afterglow in this case lasts $\sim 1 \cdot 10^{-4}$ seconds. A.Ya. Gutner and Ye.K. Raspletina are thanked for measuring the luminescence characteristics of the luminophores, N.G. Karpel' for his spectroscopic analyses of aluminum oxide, and V.G. Sergeyeva for having prepared the luminophores. There are 2 figures and 4 references: 2 Soviet-bloc.

Legend to Fig. 1: Spectrum of luminophores (1) $\text{Al}_2\text{O}_3\text{-Ce}$, (2) and (3) $2\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot \text{SiO}_2\text{-Ce}$.



Card 3/5

L 26491-66 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6013070

SOURCE CODE: UR/0048/66/030/004/0637/0643

AUTHOR: Bundel', A.A.; Vishnyakov, A.V.; Galaktionov, S.S.; Guretskaya, E.I.; Zhukov, G.V.; Kamenskaya, S.A.; Kreytser, K.A.; Oranovskaya, T.V.; Chashchin, V.A.

ORG: None

TITLE: On the effect of the preparation conditions on the formation of traps in ZnS and ZnO base phosphors and the influence of predecomposition phenomena in solid solutions of Cu_2O in ZnS on their luminescence /Report, Fourteenth Conference on Luminescence Held in Riga, 16-23 September 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 4, 1966, 637-643

TOPIC TAGS: luminescence, crystal phosphor, zinc sulfide, current carrier, *luminescence*

ABSTRACT: Introduction of new experimental methods has increased rather than reduced the disagreement among different investigators regarding the structure of zinc sulfide luminophors. On the basis of previous investigations of glow curves and the polarity of the photocurrent carriers the authors showed that for the most part the discrepancies are due to inadequate control of the synthesis conditions, i.e., that the phosphors studied by different groups differed as regards structure owing to unintentional variations of the preparation conditions. Experiments show, for example, that truly self-activated ZnS exhibits only one glow curve peak, but that if the compound

Cord 1/2

L 26491-66

ACC NR: AP6013070

is exposed to oxygen, even at low pressure, during heating a second glow-curve peak appears and this is accompanied by change in the polarity of the photocurrent carriers (from n to p). Various experiments were carried out with pure, self-activated and impurity-activated ZnS and ZnO (including surface oxidized specimens) and several series of glow curves are reproduced. Data on the polarity of the current carriers in photoconductivity are also adduced. The curves and data demonstrate the effects of the synthesis conditions. A series of phosphors was prepared by heating different mixtures of ZnS with Cu_2S without flux at 1000°C , followed by reheating with quartz powder (to prevent caking) in sealed tubes at 1050° . These ZnS:Cu phosphors were studied immediately after preparation, after various heat treatments and after storage for some months at 20° . Their attributes differed considerably, again indicating the importance of synthesis and other conditions. It is pointed out that understanding of the peculiarities of the complicated chemical system constituted by copper-activated zinc sulfide luminophors requires further thorough investigation of the ZnS- Cu_2S -Cu system. Orig. art. has: 1 formula and 6 figures.

SUB CODE: 20/

SUBM DATE: 00/

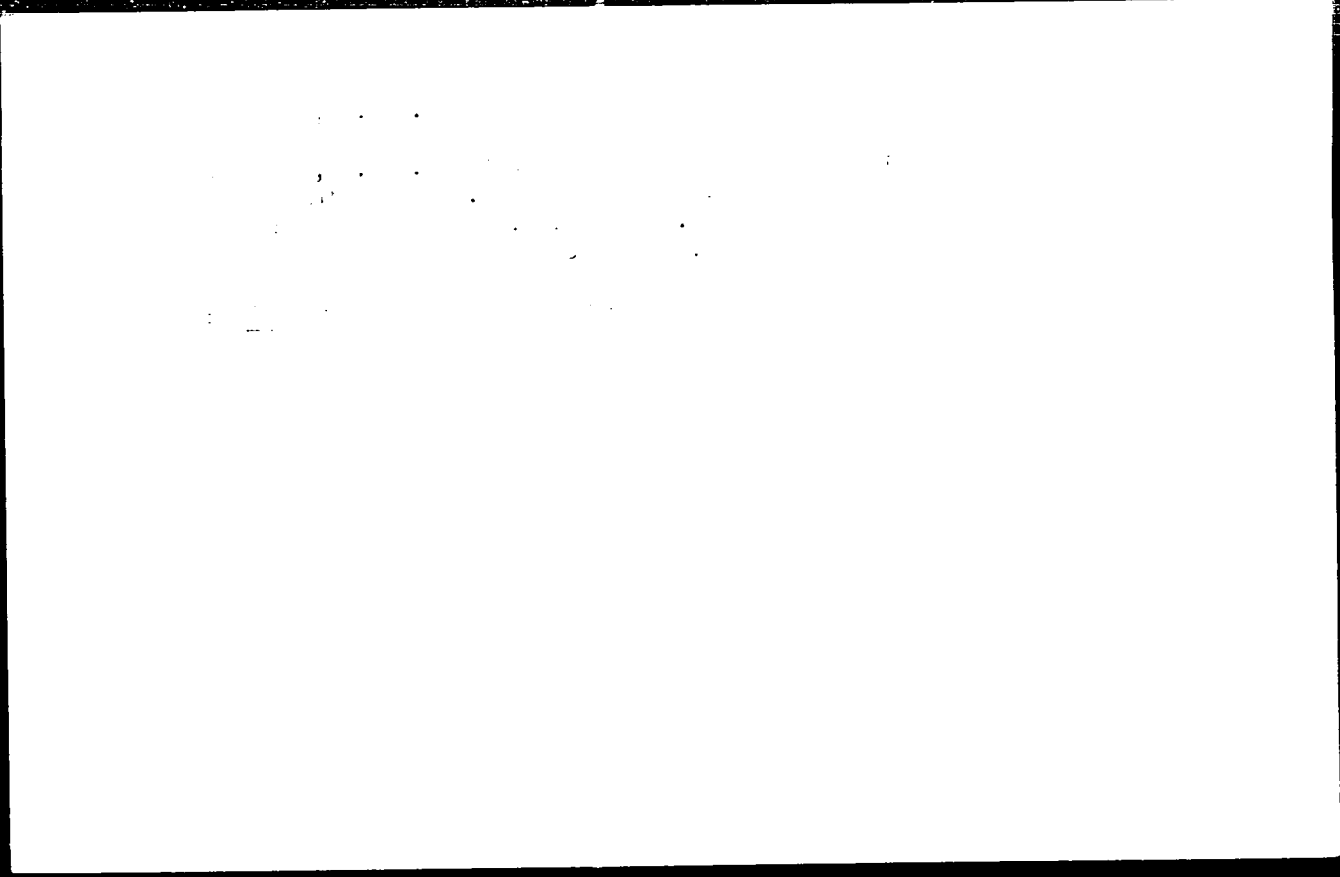
ORIG REF: 008/

OTH REF: 008

Card 2/2 (C)

"APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R001238



APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0012381

SOV-26-58-11-3/40

AUTHOR: Oranovskiy, V. Ye., Candidate of Technical Sciences

TITLE: Electroluminescence (Elektroluminestsentsiya)

PERIODICAL: Priroda, 1958, Nr 11, pp 17 - 22 (USSR)

ABSTRACT: The article deals in general terms with the history and theoretical principles of the phenomenon of electroluminescence, and some aspects of its practical utilization. Only recently was an intensified study of the phenomenon started in the USSR. There are 4 graphs, 1 diagram, and 1 photo.

ASSOCIATION: Fizicheskiy institut im. I.N. Lebedeva AN SSSR Moskva
Physical Institute imeni P.N. Lebedev, AN USSR
Moscow

1. Luminescence--Theory

Card 1/1

AUTHORS: Orlovskiy, V.Ye. and Trapozniakova, Z.A.

UDC 621.372.7.01

TITLE: Investigation of the Electroluminescence and Photoluminescence Spectra of Phosphor Activated with Rare-Earth Elements (Issledovaniye spektrov elektroluminescentnoy i fotoluminescentnoy tsifrovoy, aktivirovannoy rezhimom shchitki elementami)

PERIODICAL: Optika i Spektroskopiya, 1988, Vol. 5, No. 3, pp. 101-104 (USSR)

ABSTRACT: The authors studied ZnS:Er,Cu and ZnS:Ni,Cu phosphors with 4.3×10^{-4} g-atoms of Cu and 4.3×10^{-4} g-atoms of Ni or Er per 1 mole of ZnS. The phosphors were prepared in a stream of wet H₂S at 1150°C. ZnS:Er,Cu,Ln phosphor with 4.3×10^{-4} g-atoms of Ln per 1 mole of ZnS was also prepared. The presence of Ln produced a strong and characteristic of cerium emission as well as the appearance of red lines of thulium (present as an impurity in cerium). The electroluminescence and photoluminescence spectra were recorded photoelectronically using the same capacitor for both purposes. The afterglow spectra were also recorded photoelectronically and a rapidly decaying afterglow was observed. Fig. 1 shows the electroluminescence spectra.

Investigation of the Electroluminescence and Photoluminescence Spectra of
 Scaphers Activated with Rare Earth Elements

and photoluminescence spectra of $ZnS-Ni,Cu$. Fig. 1 gives the electroluminescence spectra of $ZnS-Er,Mn,Cu$ at voltages of 1000 (curve a) and 1500 V (curve b). Fig. 2 gives the photoluminescence spectra of $ZnS-Er,Mn,Cu$. Curve a was obtained at $1/100$ of the excitation intensity used to obtain curve b. Fig. 4 gives the afterglow spectra of $ZnS-Er,Mn,Cu$. Again curve a shows the spectrum obtained using $1/100$ of the excitation intensity employed to produce curve b. Fig. 5 gives the ratio of intensities of the erbium line at 542 mμ and the maximum of the manganese band at 530 mμ for $ZnS-Er,Mn,Cu$. Curve a represents photoluminescence, curve b refers to the afterglow spectrum and curve c applies to electroluminescence. The following

part 147

SO/61-5-1-17
 Investigation of the Electroluminescence and Photoluminescence Spectra of
 Phosphors Activated with Rare-Earth Elements

conclusions are reached by the authors: (A) The centres responsible for electroluminescence and photoluminescence of $ZnS-Ni,Co$ and $ZnS-Er,Mn,Co$ are the same and are similarly distributed throughout the lattice. (B) The emission of the phosphor studied is mainly due to electron transitions ("thermal" electrons). (C) The efficiency relative to electroluminescence is about 2% of the volume active in photoluminescence. The authors thank A. A. Anisimov, A. A. Anisimov, I. N. Alexeev and I. V. Fok for advice. There are 11 references, 10 of which are Soviet.

COLLECTION: Fizicheskii Institut im. P.N. Lebedeva, AN SSSR (Physical Institute named P.N. Lebedev, Academy of Sciences of the U.S.S.R.)

DATE: September 27, 1967

1. Phosphors--Excitation. 2. Phosphors--Spectra. 3. Luminescence spectra--Analysis. 4. Rare earth elements--Applications.

ORANOVSKIY, V. Ye., and KHMELIKIN

(Moscow)

"Studies of the Electroluminescence of ZnS (Cu) Single Crystals."

paper presented (by Antonov-Romanovskiy) at the Meeting on Physics and Chemistry of Phosphors, Physical Society of East Germany, Griefswald, East Germany, 26-29 April 1959.

ORANOVSKIY, V.Ye.; PANASYUK, Ye.I.; FREDYUSHIN, B.T.

Studying the electroluminescence of single crystals of ZnS
and CuCl [with summary in English]. Inzh.-fiz.zhur. no.1:39-
45 Ja '59. (MIRA 12:1)

1. Fizicheskiy institut im. P.N.Lebedeva, Moskva.
(Crystals--Electric properties)

SC 4/ 51-7-4-17/32

AUTHORS: Oranovskiy, V.Ye., and Khmelinin, B...

TITLE: Investigation of Electroluminescence of ZnS-Cu Monocrystals.

PERIODICAL: Optika i spektroskopiya, 1959, vol 7, Nr 4, pp 542-546 (USSR).

ABSTRACT: Oranovskiy, Panasyuk and Redyushin (ref 1), reported that in ZnS crystals electroluminescence occurred in long narrow regions, called "dashes" and was concentrated at various spots along such dashes. The present paper reports further studies of these emitting "dashes". This was done by observing brightness (luminescence) waves as from various regions of the "dashes" and studying the effect of an ultraviolet light spot (100 μ in diameter, on the brightness waves. Electroluminescence was excited with 2000 V, 1500 c/s fields. It was found that electroluminescence was affected most strongly by ultraviolet spots of 365 m μ wavelength; 313 and 404 m μ light was less effective. To separate small regions of the crystal a microscope with diaphragms of various forms and dimensions was used. A comparatively long (1.2 cm) "dash" without any spots was used in these investigations. Visual observation of the "dash" showed that it consisted of several neighbouring sectors whose lengths varied from 40 to 300 μ . The boundaries of these sectors coincided very frequently with visible crystal defects, but the converse was not true. A photomultiplier and a two-beam oscillograph were used

Card 1/3

507/51-7-4-17, 52

Investigation of Electroluminescence of ZnS-Cu Monocrystals

to observe brightness waves from various sectors of the electroluminescent "dash". It was found that within one sector the position of the brightness wave maximum was constant with respect to the phase of the exciting voltage. When the exciting voltage frequency was altered the brightness-wave phase altered as well. The phases of brightness waves from neighbouring sectors were different: in all eight brightness waves with different phases were observed. For a given sector of the "dash" two brightness-wave peaks were observed in each excitation cycle (Fig 2a). On moving the ultraviolet spot towards this sector from one side, the first peak rose sharply while the other practically disappeared (Fig 2b). When the ultraviolet spot approached the sector from the opposite direction the first peak disappeared while the second was strengthened (Fig 2c). To observe the full effect of the ultraviolet spot usually less than 1 sec was required, but the return to the original picture of Fig 2a when ultraviolet radiation ceased took tens of seconds (Fig 3). In some cases ultraviolet irradiation produced, in addition to redistribution of intensity, a change in the brightness-wave phase. This is shown in Fig 4. The results obtained are interpreted as follows. The "dash" emits as a whole and various sectors correspond to regions of p- or n-type conductivity. Spots are assumed to occur at the points where p- and n-type regions meet. Since the 1.2 mm long "dash"

Card 2/3

Investigation of Electroluminescence of ZnS-Cu Monocrystals

UO, 51-7-4-17/32

extended between the capacitor electrodes, the authors deduce that electroluminescence can be produced by field intensities not greater than 10^4 V/cm. The latter value shows that, at least in the direction of the "dash", the electron paths may be up to two orders of magnitude greater than the mean free path. This agrees with the considerable rise of conductivity of electroluminescent monocrystals in the direction most favourable for electroluminescence (ref 2). Acknowledgment is made to Ye. I. Panasyuk for preparation of ZnS monocrystals. There are 5 figures and 2 references, 1 of which is Soviet and 1 English.

SUBMITTED: February 18, 1959

Card 3/3

ORANOVSKIY, V.Ye.

Are luminophors harmful? Priroda 49 no.9:77 S '60. (MIRA 13:10)

1. Fizicheskiy institut im. P.N. Lebedeva AN SSSR, Moskva.
(Luminescent substances)

24 3500

AUTHOR: Ivanovskiy, V. I.

TITLE: Investigation of the electro-luminescence of ZnS based on LNS

PERIOD: Izvestiya Akademii Nauk SSSR Seriya Fiz. Khim. Nauk, 1961, 316-318

TEXT: The present paper was read at the 10th Conference on the Physics of Crystal Phosphors and, in addition, the investigation of the electro-luminescence of ZnS, Cu-doped crystal. It was found that the present paper to clarify the properties of the elementary processes of the excitation mechanism and the influence of the "impurity" on the properties of this paper. Indications have been found under the conditions of crystals at various positions of the probe with a homogeneous region of lines observed. During these measurements the probe has been directed towards the crystal regions located outside the field of view. Indications have been found under the following excitation conditions: without additional excitation with the help of the

Card 1/4

22170
S/048/61/025/004/027/048
B117/B212

Investigation of the...

reaction of the gaseous phase of zinc- and hydrogen sulfide. The activation of copper and manganese took place during the growth of the crystal. These crystals showed the same distribution character of luminescence during the electroluminescence as has been found in crystals investigated earlier. The luminescence was concentrated on single parallel lines. The lines of copper luminescence are blue those of manganese luminescence are red. It has been found that manganese lines will react not at all or much less than copper lines on the effect of the photo probe. The fact that the luminescence of manganese is independent of the effect of the photo probe proves that the luminescence of copper will take place during the semicycle voltage, which follows the excitation. This also confirms the statement that the processes of the field concentration are independent in a wide range of the number of additionally introduced charge carriers having either sign, and that the excitation of the electroluminescence centers in these crystals will take place in the high-voltage region of the electric field. There are 2 figures and 3 Soviet-bloc references.



Card 3/4

22178

ORANOWSKI, W. E. [Oranovskiy, V. E.]

Investigation of electroluminescence of ZnS monocrystals.
Acta phys Hung 14 no.2 3:115-119 '62.

1. Physikalisches Institut P. N. Lebedew der Akademie der Wissenschaften der Sowjetunion, Moskau, USSR. Vorgelegt von G. Szigeti
[Gyorgy Szigeti]

L 43860-65 EEC(b)-2/EWA(c)/EWT(1)/EWT(m)/EWP(b)/I/EWP(t) P1-4 IJP(c) GG/JD
 ACCESSION NR: AP5006436 S/0051/65/018/003/0474/0478

AUTHOR: Oranovskiy, V. Ye.; Samoteykin, V. V.

TITLE: Investigation of electroluminescence of single crystals of zinc sulfide

SOURCE: Optika i spektroskopiya, v. 18, no. 3, 1965, 474-478

TOPIC TAGS: electroluminescence, zinc sulfide optical material, single crystal, luminescence center, luminescence excitation

ABSTRACT: This is a continuation of earlier work by one of the authors (Oranovskiy et al., Inzh.-fiz. zhurn. no. 3, 39, 1959; Opt. i spektr. v. 7, 543, 1959; Izv. AN SSSR, ser. fiz. v. 25, 516, 1961), in which it was shown that individual sections of the glowing lines produced when single-crystal ZnS-Cu,Cl is excited with alternating field glow at different phases of the exciting voltage. The purpose of the present investigation was to determine more clearly the connection between these electroluminescence lines and structural or electrical inhomogeneities in the crystal, and to determine whether application of the electric field causes impact ionization or the tunnel effect in the crystal. The observation and the measurements were carried out with a microscope, and the electroluminescence was excited

Card 1/2

L 43860-65

ACCESSION NR: AP5006436

by the edge field of a capacitor or with the aid of contacts, the exciting voltage having a frequency of 1300 cps. The measurement procedure was also similar to that used in the earlier investigations. The probe was a light spot 50 mm in diameter of ultraviolet light at 365 mm wavelength. An ac and a dc field could be applied to the crystal simultaneously with photoexcitation by means of the probe. The radiation was recorded with a photomultiplier and an oscilloscope. The results show that the glow lines are formed in the regions of electric-field concentrations on the boundaries between the areas where changes take place in the conductivity of the crystal ($n'-n-n'$ regions where $n > n'$, analogous with p-n-p junctions in semiconductors). An investigation of the variation of brightness with amplitude as a function of the additionally applied constant field has shown that the excitation and ionization of the luminescence centers are produced by cascade-impact mechanism rather than by a tunnel effect. Orig. art. has: 1 figure and 1 formula.

ASSOCIATION: None

SUBMITTED: 16Mar64

ENCL: 00

SUB CODE: 0P,55

NR REF SOV: 004

OTHER: 000

Card 2/2 CC

ORASCU, S., Ing.

Siderurgical processes electronically controlled. St at Tex Bus
15 no.5:2-4 My 63